

Grazing Alfalfa: Putting the Puzzle Together

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Interest in alfalfa as a grazing crop has increased dramatically over the past decade. There are many research and demonstrations being conducted in Kentucky and across the U.S. as we continue to investigate and learn more about alfalfa's role in forage-based livestock production.

Listed below are some of the reasons farmers, researchers and agribusiness personnel are excited about the opportunity for alfalfa as a grazing crop.

Versatile Use — Alfalfa can be ideal on farms where it can be used for hay, silage, or grazing. Virginia workers studied systems of grazing alfalfa based on need and environmental conditions. Systems of grazing the early spring growth provided quality feed and delayed the first hay harvest until more favorable weather for curing. Other systems provide grazing during midsummer when cool-season grasses are often less productive. Comparing the systems shows that total season yield was not reduced by any graze-hay systems.

With proper grazing management, alfalfa's **high yield potential** can be converted to high levels of animal production per acre. Liveweight gains per acre are quite high for grazing beef cattle, with total season gains of 500 to over 800 lb/acre in research trials and on-farm demonstrations.

Alfalfa's **quality for grazing** is excellent, resulting in total season average daily gains over 2 lb/day in grazing trials and demonstrations.

Alfalfa's deep root system makes it more **drought tolerant** than our other cool-season legumes and grasses. Although alfalfa does not make maximum growth during summer droughts, it usually provides good summer pastures. During extreme drought this aspect becomes even more important since cool-season grasses become dormant.

Extended Use of Stand — For old alfalfa fields that have been used for hay but where some of the stand has been lost or become weedy, grazing can extend the stand's useful life a year or more. Grazing may also rejuvenate some stands by reducing grass and weed competition. *Research results* — When alfalfa stands decline to less than 3 plants/sq ft, optimum hay yields usually cannot be achieved. Excellent beef gains have been made on alfalfa stands with as few as 1 plant/sq ft although productivity per acre suffers.

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Reduced Machinery Cost — Over 40% of the cost of producing alfalfa hay is machinery and equipment. In a total grazing system, this cost can be eliminated or certainly minimized.

Lower Fertilizer Expense — Under grazing, most of the plant nutrients are returned as dung and urine. Annual fertilizer needs therefore would be lower than where plant nutrients are removed from a field as hay.

More Profit - Workers in Tennessee reported \$484/Ac return from alfalfa as a grazing crop when marketed through dairy cows. Reports from Pennsylvania, Wisconsin and New York showed an average savings in feed cost of approximately \$180 per cow per year when grazing was used to supplement confinement feeding. Additional work in Pennsylvania using grazing to supplement confinement feeding resulted in a cost savings of \$1.00/100 lbs milk. Virginia workers conducted several demonstrations on dairy farms and were able to reduce the amount of corn silage required from 20 to 80% when grazing was used.

Grazing Alfalfa Video

This project was initiated in response to the large and growing interest in grazing alfalfa in Kentucky. Alfalfa is an important forage legume and is highly important in reaching Kentucky's AG 2000 goals. Its use as a grazing crop in Kentucky was increasing, and county extension agents for agriculture needed a teaching aid to instruct farmers and agri-business on how and why to graze alfalfa, which has traditionally been a hay/haylage crop. Alfalfa is the highest yielding, highest quality legume crop raised in Kentucky which could potentially be raised on 2 million acres of farmland. It can provide excellent nutrition to many classes of livestock, especially beef and dairy cows, and aid in the profitability and sustainability of these enterprises in Kentucky. Involved in the planning process were county extension agents (Dan Grigson, Steve Osborne and Maner Ferguson), NRCS (Ken Johnson, also a livestock producer), specialists (Garry Lacefield, Dave Stalion, Jimmy Henning and Roy Burris) and producers (Johnny Elliot, Darrel Carlton and Don Moore).

This video outlines the value and rationale for grazing alfalfa, the basics of how-to graze alfalfa, and the problems associated with grazing alfalfa. Therefore, it addresses the information needs of Kentucky producers and agribusiness in this area.

The major goal of the project was to generate a video that could be used, stand alone or in an educational program, to aid farmers in the decision of whether to graze alfalfa, and if so, how. This goal has been met as this video has been used in advanced training for county extension agents, in farmer/agri-business meetings across Kentucky, and has been requested for distribution across the alfalfa producing region. The video has been used statewide and one copy of the video is available for each county in Kentucky. This project involved all facets of the alfalfa grazing issue, from ag communications specialists to agronomy specialists and research scientists to Natural Resource Conservation Service personnel to producers.

This video has been shown as part of state forage educational meetings in Lexington and Princeton and has been used as part of basic and advanced training for county ag agents. A primary evidence of this projects impact is the fact that a national alfalfa seed company is distributing the video nationally.

Copies of the video are available from the University of Kentucky, Agricultural Communications Services, at a cost of \$10.00 each.

Selected References

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